AN EVALUATION OF THE FIRST METROPOLITAN MEDICAL STRIKE TEAM

STATEGIC MANAGEMENT OF CHANGE

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ABSTRACT

The increasing threat of terrorist utilizing weapons of mass destruction has led many people to question the level of preparedness of the United States to deal with the aftermath of such an event. As a result of an evaluation of the nation's capabilities, the concept of a locally available and rapidly deployable nuclear, biological and chemical response team was envisioned. The federal government and many others pushed this concept to fruition with the development of the first Metropolitan Medical Strike Team, MMST DC-1. As currently envisioned, 26 other metropolitan areas will be assisted with the development of Metropolitan Medical Strike Teams for their communities.

The purpose of this research project was to determine if the Washington based MMST had been adequately prepared to perform the task they were created for. The research was conducted utilizing the Evaluative research method and involved surveying all non management members of the MMST. The research questions answered were:

1. Was the training that the MMST members received adequate for nuclear, biological and chemical incidents?

2. Were the guidelines developed for the MMST adequate for nuclear, biological and chemical incidents?

3. Are the MMST equipment and supplies adequate for operations at nuclear, biological and chemical incidents?

The results of this study showed a wide variation in the level of perceived adequacy of the training, equipment and guidelines in relation to the specific incident type. Chemical type of incidents showed a strong level of perceived adequacy across all three areas of examination while nuclear incidents showed a low level of perceived adequacy across all three areas of the study.

Recommendations included a reexamination of the role MMST members would play in nuclear incidents as well as a strengthening of the training, equipment and operational guidelines that govern this team on nuclear incidents.

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INTRODUCTION

With the increasing concern in the United States of the use of nuclear, biological and chemical weapons by terrorist groups, the level of domestic preparedness has been questioned by many. While the general consensus is that the United States has significant resources to address the aftermath of a domestic nuclear, biological or chemical (NBC) incident, the time frame in which these federal forces can be marshaled and locally deployed is significant. To address this initial period of post incident vulnerability where it is very likely that local forces would be overwhelmed and federal and military forces are still hours away, the concept of Metropolitan Medical Strike Teams was developed.

As planned, Metropolitan Medical Strike Teams would consist of locally available, specially trained and equipped response personnel who could provide needed support to local first responders (police, fire and EMS) prior to the arrival of federal and military forces. To date the federal government has identified 27 metropolitan areas to receive federal funding to assist in their development of Metropolitan Medical Strike Teams (MMST). The Washington, DC metropolitan area was one of these identified areas and on December 1, 1997 the first MMST, DC-1 became operational. Additionally, a total of 120 metropolitan areas have been selected to receive specialized training in nuclear, biological and chemical incidents.

The purpose of this research is to determine if the Washington metropolitan area based MMST has been adequately prepared to perform the tasks that they were created for. This

research is to be accomplished using the Evaluative research method. The research questions to be answered are:

1. Was the training that the MMST members received adequate for nuclear, biological and chemical incidents?
2. Are the operational guidelines developed for the MMST adequate for nuclear, biological and chemical incidents?
3. Are the MMST equipment and supplies adequate for operations at nuclear, biological and chemical incidents?

BACKGROUND AND SIGNIFICANCE

For many people the continuing debate about whether or not terrorism had actually come to the United States ended in February of 1993 with the bombing of the World Trade Center in New York City. For the hard core skeptics a second wake up call was issued in April of 1995 with the bombing of the Alfred P. Murrah Federal Building in Oklahoma City. Both of these incidents painfully illustrated the vulnerability of the United States to both international as well as home grown terrorist groups. In March of 1995 another significant terrorist event occurred. A terrorist group in Japan attacked the Tokyo subway system using the chemical warfare agent sarin, resulting in a large number of civilian and firefighter casualties.

While these events alone should have been sufficient to warrant an examination of the preparedness of the United States to successfully address what could be conservatively described as an emerging problem, there was a disturbing shift in the focus and methods of these terrorist events that independently warranted further examination.

Both the New York City World Trade Center bombing and the Murrah Federal Building bombing in Oklahoma City were large scale attacks designed to inflict mass casualties and appear to be a new terrorist method in the United States (Terrorist Research and Analytical Center [TRAC], 1996). Part of the growth of this type of terrorism has been spurred by the media coverage of terrorism. As the media and public becomes inoculated against violence and terrorism, the terrorist will have to resort to larger and larger operations to gain the same publicity (Mullins, 1997). The Oklahoma City bombing was one of the largest explosions ever investigated by the FBI and resulted in the killings of more Americans in the United States than any terrorist attack in recent history.

> This increase in casualties and casualty-producing incidents is especially significant. Although terrorist operations producing mass casualties have been extremely rare, and the largest number of deaths produced by these incidents have been on the order of a few hundred rather than a thousand, ten thousand, or a hundred thousand, there is evidence suggesting that terrorist may now believe that casualties are necessary to generate the amount of publicity formerly evoked by less violent operations. (Roberts, 1997, p.5)

This pattern of increasingly larger terrorist events are supported by statistical data that identifies a general trend in which fewer terrorist attacks are occurring in the United States , while at the same time the individual attacks are becoming more deadly (TRAC, 1996).

The Tokyo subway attack was also designed to inflict mass casualties. The mechanism, however, to carry out this mission differed significantly. The World Trade Center and the Murrah Federal building incidents primarily involved explosive devices, although there was some evidence that the World Trade Center bomb also contained cyanide. The Tokyo subway incident however, involved the deliberate release of a chemical warfare agent. This was in many ways an unprecedented attack. Chemical agents had not previously been used in large scale terrorist attacks aimed at creating indiscriminate casualties. "This attack demonstrated that the strategic, tactical, and moral barriers that were thought to have dissuaded terrorist groups from using weapons of mass destruction had, at least in this case, been breached" (Roberts, 1997, p.75). Although this action occurred in Japan the significance of the event was felt world wide. The use of nuclear, biological, or chemical weapons had previously been something that was primarily a military battlefield concern. The actual use of a weapon of mass destruction (NBC) caused many countries including the United States to assess its ability to respond to such an event if such weapons were delivered unannounced in a civilian setting. This use of a chemical weapon, with its associated urgency of emergency responder action, highlighted the importance of the timeliness of any response effort and underscored the reality that response time is a critical and integral part of any formula to realistically evaluate response capability.

The concern over the nations preparedness to respond to terrorist events involving NBC weapons was pushed to the forefront and surfaced in many areas.

> In May 1995, Jack Evans , chairman of the Washington [DC] Metropolitan Council of Governments (COG), sent a letter to President Clinton in which he articulated concerns regarding the Washington area's ability to respond to such incidents and

outlined steps that could be taken to assist metro-area responders.

In October, William E. Clark, deputy director of the U.S. Department of Health and Human Services' Office of Emergency Preparedness, drafted a reply in which he described the activities the HHS/OEP had undertaken over the previous several months:

- Developed a framework for a rapid-deployment team.
- Hosted a meeting of regional and local responders for the purpose of developing a metropolitan strike team.
- Hosted a two-day conference titled "Responding to the Consequences of Chemical and Biological Terrorism. (Moultrie, 1996, p.49)

As a result of these and other actions a joint initiative between the U.S. Department of Health and Human Services and the COG Fire Chiefs Committee ensued and a Nuclear, Biological, and Chemical steering committee was formed (Moultrie, 1996). "The committee's role was to develop a model of the Metropolitan Medical Strike Team concept that could be emulated by municipalities nationwide". (Moultrie, 1996, p.49)

On December 1, 1997 the first Metropolitan Medical Strike in the nation, DC-1, became operational. This team, which is based in the Washington DC metropolitan area serves as a nuclear, biological, and chemical response force which is available for activation locally as well as being an integral part of the Federal Response Plan (Emergency Support Function #8). The MMST consist of 129 trained on-call personnel from various local jurisdictions and agencies who are divided into three, forty three member task forces. Each task force consists of physicians, nurses, paramedics, and other medical professionals as well as hazardous material technicians, command personnel, and law enforcement officers. The team comes equipped with

medical supplies and pharmaceuticals, chemical and radiological detection and monitoring equipment, mass decontamination equipment, self contained communication equipment, and long term warm/hot zone entry equipment.

The value of having a NBC response team that is locally available begins to address some of the major shortcomings in our nations response capability. The value of this team, however, is dependent on more than its geographical location. Its value is really dependent on its ability to perform the mission it was created for. This research project attempts to evaluate the ability of this newly created team to carry out its stated mission in the context of providing assistance on NBC incidents.

The attempt through this research project to evaluate the newly created MMST is directly related to the course work presented in the National Fire Academy's Strategic Management of Change class. The change management model, a concept that underpins this management course, utilizes a four phase process to manage change. The four phases are Analysis, Planning, Implementation and Evaluation. This research project focused on the Evaluation phase of this model. The Analysis phase of this model occurred when federal and local response agencies began assessing their capabilities in light of an emerging NBC terrorism threat and came to the conclusion that serious deficiencies in the local response communities existed. The Planning stage occurred when the United States Public Health Service and the Washington DC metropolitan area local emergency response community crafted out a possible solution to the identified vulnerabilities of the local responders in an NBC incident with the concept of a

MMST. The Implementation phase of the management model culminated in the placing in service the first MMST on December 1, 1997, with its mission being a quick response NBC team for the Washington D C area.

This Evaluation phase research project focused on the narrow aspect of evaluating change against the initial change goals which are spelled out in the MMST's mission statement.

LITERATURE REVIEW

A literature review of the subject was undertaken and it was found that information concerning response teams for NBC incidents was limited. More information about this subject will certainly become available in the future as federal, state and local governments begin to respond to the emerging threat of the use of weapons of mass destruction in a domestic setting. "As the NBC weapons become more available, as the technology of science improves, and as more information becomes more readily available, the when becomes more assured of occurring on the time line. 'When' will happen. Of that there is no question". (Mullins, 1997, p.356) This heighten concern over the use of these weapons has resulted in an examination of our domestic preparedness.

> During hearings held in 1995 and 1996, the US Senate Permanent Subcommittee on Investigations, for example , found that the United States did not have a plan that coordinated federal, state, and local agencies in managing the consequences of a terrorist attack with a weapon of mass destruction. The subcommittee also found that principal field officers with police, fire, and emergency service departments in major cities are inadequately trained and do not have basic equipment to deal with biological, chemical, or nuclear terrorism, including protective gear, breathing

apparatus, decontaminats, and antidotes. (Simon, 1997, p.429)

Yet despite the failure of the United States to be prepared for weapons of mass destruction incidents there is evidence that preparedness for these types of events could have a significant impact on their ultimate outcome. The Defense Science Board's 1997 Summer Study on Transnational Threats suggest that "Vaccines, detectors, masks, collective protection, and prompt medical treatment combined can make a huge difference in the outcome of an attack, perhaps reducing casualties by three orders of magnitude or more". (Defense Science Board [DSB], 1997, p.49) After the Tokyo subway incident, the National Security Council called upon the US Public Health Service to develop a contingency plan to "minimize casualties and contain contamination following a CB terrorist attack". (Roberts, 1997, p.107) The resulting plan which received input from many sources led to the development of the MMST concept. The MMST concept "emphasizes specially-trained and well-equipped metropolitan strike teams". (Roberts, 1997, p.86)

Other assets that could be called upon to assist or handle NBC incidents include units such as the Army's Technical Escort Unit and the newly created Marine Corps' Chemical Biological Incident Response Force. "These units have missions that directly support domestic incident response, and as such, have tailored equipment and extensive training requirements". (DSB, 1997, p.50)

The information available about NBC domestic preparedness suggest a level of vulnerability that is just beginning to be addressed. "We are not currently equipped to handle a widespread terrorist attack that would involve biological weapons, said Deputy Secretary of Defense John J. Hamre. We're beginning to bring together the pieces, but we're not there yet". (Graham, 1997, December 14) The reality of the situation is that there is currently an evolving response strategy concerning this threat.

Any comprehensive plan to address this growing threat must involve the adequate training and equipping of the people who will be challenged to respond to these incidents. The value of special training and equipment was evident during the initial planning concepts of the MMST as well as being an integral part of the response preparation of the specialized military units charged with providing assistance on domestic NBC incidents. In view of the important role that training and equipment as well as procedures contribute to the overall level of response capability, it was determined that an evaluation of these factors was appropriate and worthwhile.

PROCEDURES

This research project attempted to determine if the newly created MMST DC-1 had been adequately prepared to perform the functions that they had been created for as articulated in their mission statement. Specifically this research project focused on three fundamental aspects of this team's make up which are training, equipment and operating procedures. These three

areas were further explored by specific threat due to the differing response requirements of nuclear, biological and chemical incidents. The desired outcome of this research project was to determine if the MMST DC-1, as currently trained, equipped and governed by procedure was adequately prepared to perform the role it was created for. This research project utilized the Evaluative research method. A survey instrument called the "Survey Form"(see Appendix A) was sent to all non-management members (108 members) of the MMST. Sixty seven(67) of the surveys were returned which represents a sixty two (62) percent return rate. The data from the returned surveys was analyzed and is presented in the Results section.

Definition of Terms

Field Operation Guide (FOG)- refers to the United States Public Health Service Metropolitan Medical Strike Team Field Operation Guide, which was developed to assist Strike Team members during training and mission assignment involving NBC material. Every team member has been issued their own copy of this guide.

MMST DC-1- refers to the official designation given to the Metropolitan Washington Area Council of Governments strike team.

MMST equipment and supplies-the MMST has an extensive equipment cache including a mass decontamination trailer and pharmaceuticals packaged in the military style auto injector form. The complete equipment and supply inventory is provided in an inventory style format in the MMST manuals which are provided to members. Additionally, all MMST members have been issued their own full set of personal protective equipment including a powered air purifying respirator.

Population

The MMST DC-1 as planned consists of 129 members. Seven of these members make up the Program Management Team and are responsible for overseeing program direction, administration, operations, training, logistics and supply. Since many of the Program Management Team members were directly responsible for determining the existing training levels, equipment needs and operating guidelines, these members were deliberately excluded from the survey recipient list. At the time of the survey mailing, there were nine (9) team member vacancies and an additional five (5) surveys were returned for incorrect or incomplete addresses. A total of one hundred and eight (108) surveys were effectively distributed using the postal system and sixty seven (67) were returned. This mailing in effect encompassed the total population minus the exceptions noted above. The decision to survey the entire population rather than a random sampling was based on the relatively small number in the population.

Mission Statement

The mission of the MMST is articulated in its mission statement. This mission statement serves as a goal for the efforts that were directed into the development of this team. This mission statement serves as a basis from which questions concerning the overall capabilities of this team were derived. The mission statement of the MMST DC-1 is as follows:

> It is the mission of the Metropolitan Medical Strike Team to respond to, provide support for and assist local and regional jurisdictions to effectively address responder safety issues, incident management and the public health consequences of nuclear, biological or chemical (NBC) incidents which result from accidental or deliberate acts. This support and assistance includes providing planning and training to response personnel prior to an NBC incident, identification of the offending substance via available technology, off site management consultation service, and where needed, response to the scene or secondary site to assist with incident management and medical care during an NBC incident. These activities will be conducted in

> collaboration with and supported by federal, state and local authorities. (Defense Protective Service, 1998, p. 8-7)

Survey Form

The Survey Form questions were crafted to explore the basic building blocks of this operational unit.

Questions 1 to 3 queried respondents on their perception of the training they received in view of the task they would be expected to perform on nuclear, biological and chemical incidents.

Questions 4 to 6 queried respondents on their perception of the adequacy of current operational guidelines in view of their expected operations at nuclear, biological and chemical incidents.

Questions 7 to 9 queried respondents on their perception of the adequacy of the MMST equipment and supplies in view of the expected operations at nuclear, biological and chemical incidents.

The survey instrument was crafted with informal input from the staff at the National Fire Academy and reviewed by non MMST fire service personnel and then revised. A Likert scale was utilized for indexing the survey question responses.

Analysis of Data

One hundred and eight (108) Survey Forms were distributed using the postal system, sixty seven (67) were returned. This represents a return rate of sixty two (62) percent. Two Survey Forms were not completely filled out with one question on each form left blank. The collected data was analyzed and the results were presented in table form in the Results section.

LIMITATIONS

It was assumed that all survey recipients who responded to this survey answered truthfully. Many of the team members of this specialized team are drawn from area fire department hazardous material units and specialized police units that in many cases already had or were concurrently receiving training in NBC materials. It may have been difficult to separate out previously or concurrently received training from the training provided for the MMST. This newly formed team has not had any actual or suspected incidents and therefore survey responses were not based on practical experiences.

RESULTS

Training

Survey questions 1 through 3 queried the respondents on their perception of the adequacy of the MMST training they had received in view of their expected duties on nuclear, biological and chemical incidents. NBC incidents, while often grouped together, require differing responder action and were therefore individually explored. The respondents indicated on chemical incidents that 15 (22.3 percent)"Strongly Agree"

and 40 (59.7 percent) "Agree" with the adequacy of training. The respondents indicated on nuclear incidents that 27 (40.2 percent) "Disagree" and 11 (16.4 percent) "Strongly Disagree" with the adequacy of the training. On biological incidents, 41 (61.1 percent) "Agree" with the adequacy of training while 10 (14.9 percent) "Disagree" and 3 (4.4percent) "Strongly Disagree" with the adequacy of this same training. The survey data for all respondents is presented in Table 1.

Table 1

Perception of Adequacy of Training

	Nuclear		**Biological**		**Chemical**	
	N	%	N	%	N	%
Strongly Agree	2	2.9%	7	10.4%	15	22.3%
Agree	17	25.3%	41	61.1%	40	59.7%
No Opinion	10	14.9%	6	8.9%	2	2.95
Disagree	27	40.2%	10	14.9%	7	10.4%
Strongly Disagree	11	16.4	3	4.4%	2	2.9%
			N=67			

Guidelines

Survey questions 4 through 6 queried the respondents on their perception of the adequacy of the MMST operational guidelines in view of their expected operations at nuclear, biological and chemical incidents. These three types of incidents were individually explored. The respondents indicated that on chemical incidents 17 (25.3 percent) "Strongly Agree" and 39 (58.9 percent) "Agree" with the adequacy of the guidelines. The respondents indicated on nuclear incidents that 16 (23.8 percent) "Disagree" and 8 (11.9 percent) "Strongly Disagree" with the adequacy of the guidelines. On Biological incidents 13 (19.4 percent) "Disagree" with the adequacy of the guidelines. The survey data for all respondents is presented in Table 2.

Table 2

Perception of Adequacy of Guidelines

	Nuclear		**Biological**		**Chemical**	
	N	%	N	%	N	%
Strongly Agree	4	5.9%	7	10.4%	17	25.3%
Agree	23	34.3%	35	52.2%	39	58.9%
No Opinion	16	23.8%	12	17.9%	5	7.4%
Disagree	16	23.8%	13	19.4%	6	8.9%
Strongly Disagree	8	11.9%	0	0.0%	0	0.0%

N=67

Equipment

Survey questions 7 through 9 queried the respondents on their perception of the adequacy of the MMST equipment and supplies in view of their expected operations at nuclear, biological

and chemical incidents. These three types of incidents were individually explored. The respondents indicated on chemical incidents that 15 (22.3 percent) "Strongly Agree" and 37 (55.2 percent) "Agree" with the adequacy of equipment and supplies. The respondents indicated on nuclear incidents that 24 (35.8 percent)

"Disagree" and 12 (17.9 percent) "Strongly Disagree" with the adequacy of the equipment and supplies. On biological incidents 18 (26.8 percent) "Disagree" with the adequacy of the equipment and supplies. The survey data for all respondents is presented in Table 3.

Table 3

Perception of Adequacy of Equipment

	Nuclear		**Biological**		**Chemical**	
	N	%	N	%	N	%
Strongly Agree	1	1.4%	5	7.4%	15	22.3%
Agree	13	19.4%	36	53.7%	37	55.2%
No Opinion	17	25.3%	6	8.9%	4	5.9%
Disagree	24	35.8%	18	26.8%	11	16.4%
Strongly Disagree	12	17.9%	1	1.4%	0	0.0%

N=67

DISCUSSION

It is evident from the survey results that there is a wide variation in the perception of the adequacy of training in relation to the specific type of incident. The level of training for a chemical type of incident appears strong with 82 percent of the respondents indicating they agreed or strongly agreed with the adequacy of the training. On biological incidents it appears that the training, although not as strong as the chemical training, would be adequate. On nuclear incidents however, almost 57 percent of the respondents disagreed or strongly disagreed with the adequacy of training. It appears therefore that the training for nuclear incidents did not adequately prepare team members to carry out the tasks they would be expected to perform on this specific type of incident. This training discrepancy maybe due in part to greater emphasis being placed on chemical and biological incidents because they are newly identified threats. Additionally the role MMST responders would play in a chemical and to a lesser degree a biological incident is more defined than in nuclear incidents and the probability of a chemical or biological incident actually occurring is greater than for a nuclear incident.

When reviewing the survey data on the perception of the adequacy of the guidelines, chemical incidents and to a lesser degree biological incidents appeared to be adequately covered by the existing guidelines. There appears to be a low perception of the adequacy of the guidelines with respect to nuclear incidents, with over one third of the surveyed team members questioning this component of the guidelines.

The perception of the adequacy of equipment and supplies also shows a wide variation by threat type and warrants attention. The data indicates that the MMST equipment and supplies are adequate for chemical incidents. The data also indicates that the MMST equipment and supplies are adequate for biological incidents, however it should be noted that there is a significant minority (28.2 percent) of respondents who question the adequacy of the equipment and supplies. The data also indicates that the equipment and supplies are inadequate for nuclear incidents with a majority of the respondents questioning their adequacy.

It is important to keep in perspective that while the three areas of training, equipment and guidelines have been explored independently, they are in fact interrelated and can have a direct influence on each other. Additionally, there was no basis to compare research data on this newly formed team since it was the first in the nation and had just become operational and no previous studies had been undertaken.

The organizational implications of this study suggest that the efforts to create a functional NBC response team should be revisited. While the efforts to address the chemical and to a lesser degree biological threat was successful, the nuclear threat was inadequately addressed in all aspects. While the impetus for the creation of this team can be attributed to the chemical threat, there exits a danger in inadequately training, equipping and guiding members who could be called upon to respond to a nuclear type of incident.

RECOMMENDATIONS

Based on an analysis of the survey data the following recommendations are presented. The Program Management Team of the MMST, with input from MMST team members, should reexamine the role the MMST would likely play in a nuclear incident. Once this role is clearly identified, a modified training program should be undertaken to adequately train team members to perform in their identified role on nuclear incidents. The equipment and supplies of the MMST should also be reexamined in view of the stated role of the MMST on nuclear incidents and input from team members should be solicited to ensure that the proper equipment and supplies necessary to carry out that role are secured. Field Operation Guidelines should be updated to reflect the reexamined role that MMST members would play in these type incidents. These changes should be undertaken with the full realization of the interdependencies of training, equipment and guidelines and the fact that modifying or clarifying one component may or may not require action concerning the other components. For example, a component such as equipment that has been identified as being inadequate may in fact be adequate when the role of the MMST responder is clarified or narrowed.

There exist a significant minority of survey respondents who questioned the adequacy of MMST equipment and supplies on biological incidents. The reasoning behind this perception of inadequacy should be probed through solicitation of input from team members at team meetings and exercises to identify perceived problems with this particular component. All identified deficiencies that are valid should be addressed and appropriate action taken to improve

equipment and supply capabilities. Concerns of inadequacy that are not based in fact should be addressed through education and training.

Team strengths as well as weaknesses that have been identified in this study should be communicated by the Program Management Team so that other metropolitan areas that desire to emulate this team may benefit fully from the lessons learned in the creation of this prototype team.

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APPENDIX A

SURVEY FORM

Please indicate your opinion on the following survey statements by circling the most correct answer.

1.The MMST training you received adequately prepared you for the tasks you are expected to perform on a chemical incident.

Strongly Disagree Disagree No Opinion Agree Strongly Agree

2.The MMST training you received adequately prepared you for the tasks you are expected to perform on a biological incident.

Strongly Disagree Disagree No Opinion Agree Strongly Agree

3.The MMST training you received adequately prepared you for the tasks you are exp ected to perform on a nuclear incident.

Strongly Disagree Disagree No Opinion Agree Strongly Agree

4.The MMST operational guidelines (Field Operation Guide) are adequate for operations at biological incidents.

Strongly Disagree Disagree No opinion Agree Strongly Agree

5.The MMST operational guidelines (Field Operation Guide) are adequate for operations at nuclear incidents.

Strongly Disagree Dis agree No opinion Agree Strongly Agree

6.The MMST operational guidelines (Field Operation Guide) are adequate for operations at chemical incidents.

Strongly Disagree Disagree No opinion Agree Strongly Agree

7.The MMST equipment and supplies are adequate to carry out MMST operations at chemical incidents.

Strongly Disagree Disagree No Opinion Agree Strongly Agree

8.The MMST equipment and supplies are adequate to carry out MMST operations at biological incidents.

Strongly Disagree Disagree No Opinion Agree Strongly Agree

9.The MMST equipment and supplies are adequate to carry out MMST operations at nuclear incidents.

Strongly Disagree Disagree No Opinion Agree Strongly Agree